

In re: Santanu Dutta et al.
Application No.: 10/828,378
Filed: April 20, 2004
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REMARKS

Applicants appreciate the thorough examination of the present application that is reflected in the Official Action of September 16, 2004. Frankly, it would be relatively easy for the undersigned to obtain a new Declaration and to file a Terminal Disclaimer for the present application, to place the application in condition for allowance. However, with all due respect, upon careful study, Applicants respectfully submit that neither a new Declaration nor a Terminal Disclaimer is required to place the present application in condition for allowance. Accordingly, Applicants respectfully request reconsideration of the rejection of Claims 1-34, and allowance of the present application, in view of the following remarks.

Oath/Declaration

The Official Action acknowledged Applicants' claim to domestic priority for Provisional Application Serial No. 60/470,992. However, since Applicants' Declaration did not list the provisional application, the Official Action is requiring a new Declaration, which lists the provisional application.

Applicants respectfully submit, however, that neither 35 USC §120 ("Benefit of earlier filing date in the United States"), 37 CFR 1.63 ("Oath or declaration") nor MPEP §602 ("Original oath or declaration") require that a provisional application be included in the Oath or Declaration. In fact, the form "Declaration for Utility or Design Patent Application" that is included in the MPEP at Pages 600-32 and 600-33 of the MPEP, Eighth Edition, as revised May 2004 (on the USPTO website), does not include any space for placing a provisional application therein. Accordingly, Applicants respectfully request withdrawal of the requirement for a new Oath or Declaration.

Double Patenting

Pending Claims 1-34 were rejected under the judicially created doctrine of obviousness-type double patenting in view of Claims 1-305 of U.S. Patent No. 6,684,057 (the "057 Patent"). Applicants acknowledge that the '057 Patent and the present application were and are commonly assigned. Accordingly, a Terminal Disclaimer could be filed. However, Applicants respectfully submit that Claims 1-34 of the present application are patentably distinct from Claims 1-305 of the '057 Patent.

The Official Action states at Page 3:

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Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims deal with a communications system that reduces interference between a mobile and satellite and/or cellular BTS whereby said mobile unit re-uses the satellite frequency bands to communicate with either the satellite or cellular BTS's. Hence the claims are focused on reducing interference either by handing-off or through the use of an "interference reducer". In each case, the uplink/downlink signals are monitored and appropriate action is taken as dictated by the system. (Emphasis supplied.)

Applicants agree with the Examiner that the claims deal with "a communications system that reduces interference between a mobile and satellite and/or cellular BTS whereby said mobile unit re-uses the satellite frequency bands to communicate with either the satellite or cellular BTS's". However, as noted by the Official Action, "[h]ence the claims are focused on reducing interference either by handing-off or through the use of an 'interference reducer'". By using the word "OR", the Official Action appears to concede that two different techniques are being claimed: in the '057 Patent an "interference reducer" is claimed, whereas in the present application "handing off" techniques are used. These two techniques are patentably distinct, as will now be shown.

In particular, Claim 1 of the '057 Patent recites:

1. A satellite radiotelephone system comprising:
a space-based component that is configured to receive wireless communications from a first radiotelephone in a satellite footprint over a satellite radiotelephone frequency band;
an ancillary terrestrial network that is configured to receive wireless communications from a second radiotelephone in the satellite footprint over the satellite radiotelephone frequency band, the space-based component also receiving the wireless communications from the second radiotelephone in the satellite footprint over the satellite radiotelephone frequency band as interference along with the wireless communications that are received from the first radiotelephone in the satellite footprint over the satellite radiotelephone frequency band; and
an interference reducer that is responsive to the space-based component and to the ancillary terrestrial network, and that is configured to reduce the interference from the wireless communications that are received by the space-based component from the first radiotelephone in the satellite footprint over the satellite radiotelephone frequency band, using the wireless communications that are received by the ancillary terrestrial network from the second radiotelephone in the satellite footprint over the satellite radiotelephone frequency band. (Emphasis added.)

In contrast, Claim 1 of the present application recites:

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1. A method for handing over wireless communications in a satellite communications system, the satellite communications system comprising a satellite that is configured to wirelessly communicate with radioterminals in a satellite coverage area over a satellite frequency band, and an ancillary terrestrial component that is configured to wirelessly communicate with radioterminals in the satellite coverage area over at least some of the satellite frequency band, to thereby terrestrially reuse at least some of the satellite frequency band, the handover method comprising:

handing over wireless communications with a radioterminal from the ancillary terrestrial component to the satellite if the radioterminal transmit power exceeds a threshold and a received satellite signal quality exceeds a threshold, even though the radioterminal is able to wirelessly communicate with the ancillary terrestrial component. (Emphasis added.)

Moreover, Claim 13 of the present application recites:

13. A method for monitoring interference in a satellite communications system, the satellite communications system comprising a satellite that is configured to wirelessly communicate with radioterminals in a satellite coverage area over a satellite frequency band, and an ancillary terrestrial component that is configured to wirelessly communicate with radioterminals in the satellite coverage area over at least some of the satellite radioterminal frequency band, to thereby terrestrially reuse at least some of the satellite frequency band, the monitoring method comprising:

monitoring downlink wireless radiation that is received at a radioterminal from a satellite, to thereby determine potential interference created by the uplink radiation of the radioterminal due to the terrestrial reuse of at least some of the satellite frequency band. (Emphasis added.)

The remaining claims of the present application are system analogs, and will not be reproduced for the sake of brevity.

Thus, Claim 1 of the '057 Patent is based on reducing interference from the wireless communications that are received by the space-based component from a first radiotelephone by using wireless communications that are received by an ancillary terrestrial network from a second radiotelephone. This claim is quite broad. However, handover reduction techniques of the present application, which (1) hand over wireless communications with a radioterminal from an ancillary terrestrial component to a satellite if the radioterminal transmit power exceeds a threshold and a received satellite signal quality exceeds a threshold, even though the radioterminal is able to wirelessly communicate with the ancillary terrestrial component (Claim 1) and (2) monitor downlink wireless radiation that is received at a radioterminal from a satellite, to thereby determine potential interference created by the uplink radiation of the

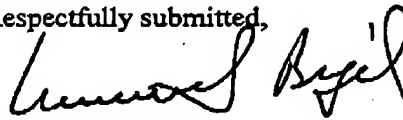
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radioterminal due to the terrestrial reuse of at least some of the satellite frequency band (Claim 13), are independent techniques that can be used together with the techniques of the '057 Patent or independent from the techniques of the '057 Patent. The fact that they are in the same field of interference reduction in communications systems that terrestrially reuse satellite frequencies does not make these inventions obvious variants of one another. In fact, as noted above, the Official Action itself stated, "[h]ence the claims are focused on reducing interference either by handing-off or through the use of an 'interference reducer'", which acknowledges that the techniques of the present application and the '057 Patent can be independent of one another. Accordingly, Applicants respectfully request withdrawal of the rejection under the judicially created doctrine of obviousness-type double patenting.

Conclusion

Applicants again appreciate the thorough examination. However, Applicants respectfully request the Examiner to take a second look at the rejections based on the Oath/Declaration and double patenting, and to withdraw these rejections in view of the analysis provided above. Accordingly, the present application is in condition for allowance, which is respectfully requested.

Respectfully submitted,

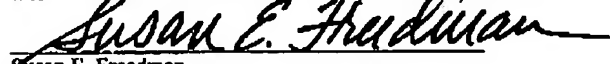


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Susan E. Freedman
Date of Signature: September 28, 2004